

What is claimed is:

1. An optical measurement apparatus comprising:  
an ion-exchange resin; and  
an optical measurement section for  
5 measuring the concentration of a component in a sample  
based on optical characteristics of said component after  
said sample is passed through said ion-exchange resin.
2. The optical measurement apparatus according to  
claim 1, further comprising a regenerating section for  
10 regenerating or cleaning said ion-exchange resin.
3. The optical measurement apparatus according to  
claim 2, wherein said regenerating section regenerates  
said ion-exchange resin with alkaline ionized water.
4. The optical measurement apparatus according to  
15 claim 3, wherein said regenerating section includes an  
alkaline ionized water producing section for producing  
said alkaline ionized water from tap water.
5. The optical measurement apparatus according to  
claim 2, wherein said regenerating section regenerates  
20 said ion-exchange resin with acid water.
6. The optical measurement apparatus according to  
claim 5, wherein said regenerating section includes an  
acid water producing section for producing said acid  
water from tap water.
- 25 7. The optical measurement apparatus according to  
claim 2, wherein said regenerating section cleans said  
ion-exchange resin with tap water.
8. The optical measurement apparatus according to  
claim 1, wherein said ion-exchange resin is replaceably  
30 mounted.
9. The optical measurement apparatus according to  
claim 1, wherein said ion-exchange resin is a weak base  
ion-exchange resin.
- 35 10. The optical measurement apparatus according to  
claim 1, further comprising a synthetic adsorbent, and  
wherein  
said optical measurement apparatus makes

said measurement after said sample is passed through said synthetic adsorbent and said ion-exchange resin.

11. The optical measurement apparatus according to claim 1, wherein said ion-exchange resin is filled into a column having a transparent window.

12. The optical measurement apparatus according to claim 11, further comprising a detecting section for detecting the color of said ion-exchange resin.

13. An optical measurement apparatus comprising:  
an ion-exchange resin;  
a holding cell for temporarily holding a sample after said sample is passed through said ion-exchange resin;  
a measurement container for holding said sample for an optical measurement after said sample is passed through said ion-exchange resin;  
an optical measurement section for measuring the concentration of component in said sample based on optical characteristics of said component when said sample is held in said measurement container;  
a detecting section for detecting the color of said ion-exchange resin through which said sample has been passed;  
a first liquid feeding means for feeding said sample held in said holding cell back to said ion-exchange resin in order to make said sample pass therethrough once again; and  
a second liquid feeding means for feeding said sample held in said holding cell into said measurement container.

14. An optical measurement apparatus comprising:  
a first ion-exchange resin;  
a first holding cell for temporarily holding a sample after said sample is passed through said first ion-exchange resin;  
a second ion-exchange resin;  
a second holding cell for temporarily

holding said sample after said sample is passed through said second ion-exchange resin;

5 a measurement container for holding said sample for an optical measurement after said sample is passed through said first ion-exchange resin or through said first and second ion-exchange resins;

10 an optical measurement section for measuring the concentration of a component in said sample based on optical characteristics of said component when said sample is held in said measurement container;

a detecting section for detecting the colors of said first and second ion-exchange resins through which said sample has been passed;

15 a first liquid feeding means for feeding said sample held in said holding cell into said second ion-exchange resin in order to make said sample pass therethrough;

20 a second liquid feeding means for feeding said sample held in said first holding cell into said measurement container; and

a third liquid feeding means for feeding said sample held in said second holding cell into said measurement container.

25 15. An optical measurement apparatus comprising:

an ion-exchange resin;

30 an optical measurement section for measuring the concentration of an optically active substance in a sample based on optical characteristics of said optically active substance after said sample is passed through said ion-exchange resin; and

a control section for continuously monitoring a measurement result from said optical measurement section.

35 16. The optical measurement apparatus according to claim 15, wherein said control section computes the concentration of said optically active substance by using the measurement result obtained when said measurement

result has settled to a steady-state value.

17. The optical measurement apparatus according to claim 15, wherein said control section makes a determination, based on the monitoring of said measurement result, as to whether ion-exchange ability of said ion-exchange resin has become saturated or not.

18. The optical measurement apparatus according to claim 15, wherein said sample is urine and said optically active substance is urine sugar.

19. The optical measurement apparatus according to claim 15, wherein said ion-exchange resin is an anion-exchange resin, a mixed-bed ion-exchange resin, or a cation-exchange resin.

20. The optical measurement apparatus according to claim 15, further comprising a regenerating section for regenerating said ion-exchange resin with a regenerating solution, and wherein

said control section makes a determination, based on the monitoring of said measurement result, as to the degree to which said ion-exchange resin has been regenerated by said regenerating solution.

21. The optical measurement apparatus according to claim 20, wherein said control section controls the amount of said regenerating solution.

22. The optical measurement apparatus according to claim 1, wherein said optical measurement apparatus is installed in a toilet seat or a toilet bowl.